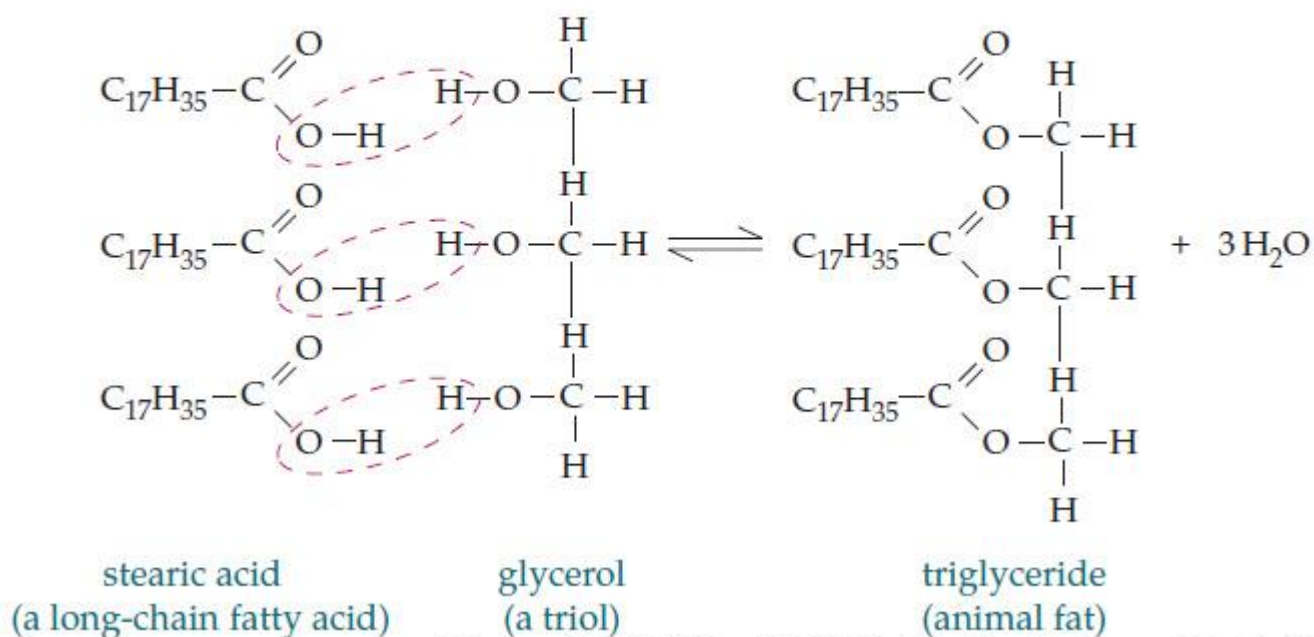
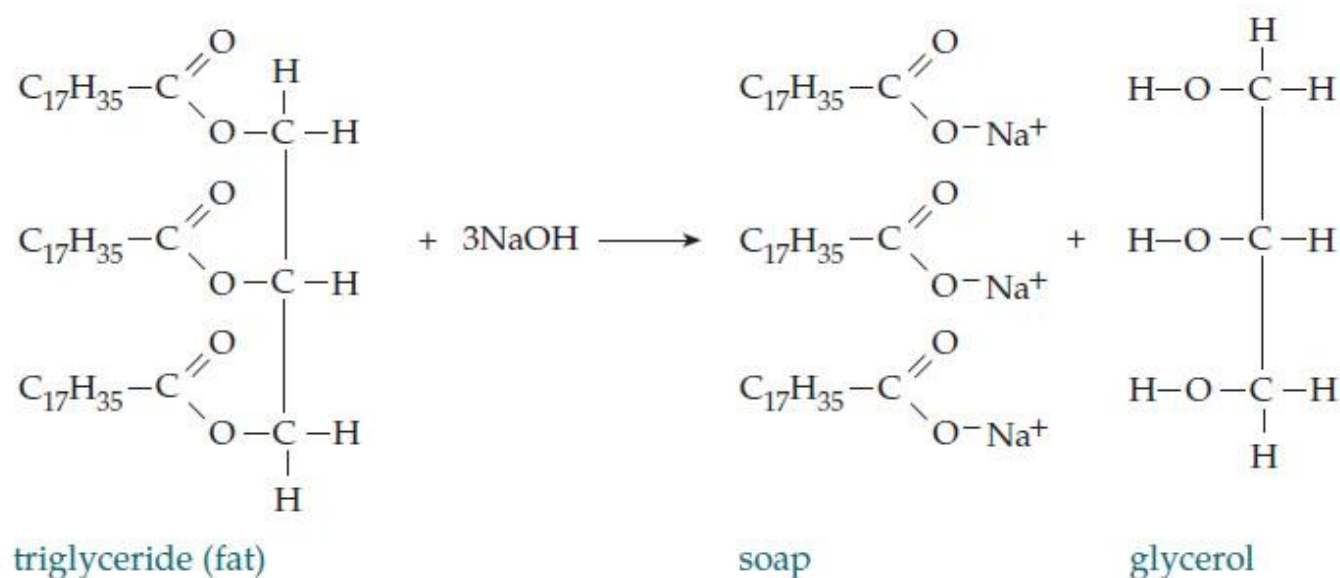


Propane-1,2,3-triol, also known as glycerol or glycerine, contains three -OH groups. When it reacts with carboxylic acids, the result is a **triglyceride**. Triglycerides are also called lipids, or more commonly fats and oils.



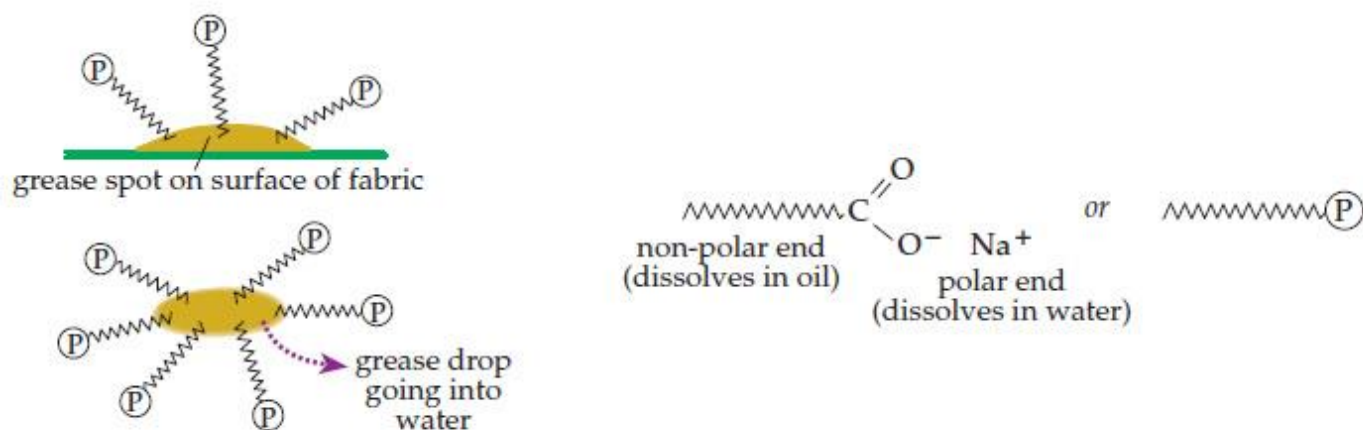
Reference: Wignall A, Wales T (2004) *Beginning Chemistry* Pearson Education NZ



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How soap works

The soap molecule has a long hydrocarbon chain which is soluble in grease, while the carboxyl group is polar and soluble in water.



The hydrocarbon chain dissolves in grease deposits while the carboxyl groups dissolve in the water, lifting the grease from the object being cleaned and dispersing it in the water.

Reference: Wignall A, Wales T (2004) *Beginning Chemistry* Pearson Education NZ